

## EPODOC / EPO

AN - JP-4037487-A  
 AP - JP19870040374 19870225  
 DT - I  
 FAMD- 12578876  
 FI - A61K31/685+AAE; A61P25/20  
 FT - 4C086/AA01; 4C086/AA02; 4C086/DA40; 4C086/DA41; 4C086/DA42; 4C086/MA01;  
 4C086/MA04; 4C086/NA06; 4C086/NA07; 4C086/NA12; 4C086/NA14; 4C086/NA20;  
 4C086/ZA02; 4C086/ZA05; 4C086/ZA12; 4C086/ZA27; 4C086/ZC39  
 IC - A61K31/685  
 IN - HIBINO HIDEHIKO; FUKUDA NOBUO; NAKACHI OSAMU  
 PA - NIPPON OILS & FATS CO LTD  
 PM - JP63208524 A 19880830  
 PR - JP19870040374 19870225  
 LA - en  
 UNAP- 62040374  
 UNIN- HIBINO HIDEHIKO; FUKUDA NOBUO; NAKACHI OSAMU  
 UNPA- NIPPON OIL & FATS CO LTD  
 UNPN- JP 63208524 A  
 UNPR- 62040374  
 XFI - A61K-031/685+AAE; A61P-025/20  
 XIC - A61K-031/685; A61K-031/683; A61P-025/00; A61P-025/20  
 AB - PURPOSE: To obtain the titled improver, containing a compound  
 having a choline skeleton in the molecule as an active ingredient,  
 having low toxicity and mild action, capable of providing sleep  
 resembling natural sleep within a physiological range without  
 causing side effects even by administration for a long period and  
 changing biorhythm. CONSTITUTION: A sleep rhythm  
 improver containing a compound having a choline skeleton  
 expressed by the formula in the molecule, e.g. glycerophosphocholine,  
 choline phosphate or phosphatidylcholine as an active ingredient. The  
 above-mentioned improver is capable of regularly producing  
 sleep for somniphathy in which the first REM sleep normally  
 appearing 60-90min after molting will not appear and applicable to  
 treatment of insomnia, alcoholism, depression or schizophrenia of the  
 old having disordered REM sleep rhythm.  
 ICAL- A61K31/685; A61P25/20  
 ICCI- A61K31/683; A61P25/00  
 INW - HIBINO HIDEHIKO; FUKUDA NOBUO; NAKACHI OSAMU  
 NPR - 1  
 OPD - 1987-02-25  
 PAW - NIPPON OILS & FATS CO LTD  
 PD - 1988-08-30  
 TI - SLEEP RHYTHM IMPROVER

XP-002515727

WPI / Thomson

AN - 1988-283020 [40]  
AP - JP19870040374 19870225

CPY - NIOF

DC - B05

DCR - [1] 127 RGT

DW - 198840

IC - A61K31/68

IN - FUKUDA N; HIBINO H; NAKACHI O

LNKA- 1988-126056

M2 - [01] B415 B615 B701 B702 B713 B720 B815 B831 B832 F011 F012 F013 F014  
F015 F113 F542 H1 H100 H121 H181 H211 H401 H402 H422 H481 H482 H721  
H722 J011 J012 J272 J371 J521 L7 L722 L812 L821 L834 L910 M210 M211  
M220 M221 M222 M223 M224 M225 M231 M232 M262 M273 M281 M282 M283 M311  
M312 M313 M316 M321 M332 M342 M343 M373 M383 M391 M392 M411 M510 M520  
M522 M530 M540 M781 M903 M904 P446 P451 P625 V762 V771; 8840-15701-U

MC - B04-B01B B05-B01P B12-C08 B12-C10

PA - (NIOF ) NIPPON OILS &amp; FATS CO LTD

PN - JP63208524 A 19880830 DW198840

PR - JP19870040374 19870225

XIC - A61K-031/68; A61K-031/683; A61K-031/685; A61P-025/00; A61P-025/20

AB - Prepn. comprises cpds. having choline structure in the mol. shown in  
formula (I):

The cpds. have a partial choline structure (I): and include  
glycerophosphocholine, choline phosphate, CDP-choline,  
phosphatidylcholine, sphingomyelin etc. and salts. These cpds. are  
generally used 2-3 g as choline in the form of conventional  
pharmaceutical oral or parenteral formulation.

## - USE/ADVANTAGE :

Sleep rhythm improving agent reduces disturbance of sleep due to  
insomnia, depression, senile dementia etc. without cumulative nor  
adverse affects. Admin. is possible for a long period of time.

ICAI- A61K31/685; A61P25/20

ICCI- A61K31/683; A61P25/00

INW - FUKUDA N; HIBINO H; NAKACHI O

IW - SLEEP RHYTHM IMPROVE MEDICAL PREPARATION CHOLINE STRUCTURE COMPOUND  
REDUCE EFFECT INSOMNIA DEPRESS SENILE DEMENTIA

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NC - 1

NPN - 1

OPD - 1987-02-25

PAW - (NIOF ) NIPPON OILS &amp; FATS CO LTD

PD - 1988-08-30

TI - Sleep rhythm improving medical prepn. - using choline structural cpds.  
to reduce effects of insomnia, depression, senile dementia etc.